

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Serial No.: 10/623,156

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Examiner: Shedrick, Charles

Attorney Docket No.: 20-520

In re Patent Application of:

POHUTSKY, et al.

Title: **WIRELESS NETWORK LOCATION-BASED REFERENCE INFORMATION**

November 30, 2006

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Applicants submit herewith the following Appeal Brief in triplicate as required by 37 C.F.R. § 41.37(c).

(1) REAL PARTY IN INTEREST

The real party in interest is TeleCommunication Systems, Inc.

(2) RELATED APPEALS AND INTERFERENCES

The Applicants and their legal representatives and assignee are not aware of any other appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the appealing appeal.

(3) STATUS OF THE CLAIMS

Claims 1-4, 6-14 and 16-31 are pending in the application. Claims 1-4, 6-14 and 16-31 stand rejected.

(4) STATUS OF AMENDMENTS

All amendments have been entered by the Examiner. Applicants have not attempted any amendments after the Final Office Action dated May 8, 2006.

(5) SUMMARY OF THE CLAIMED SUBJECT MATTER

Wireless devices have provided the ability to determine the location of services in an area much more conveniently. For instance, one existing wireless device technology uses mobile originated short messaging system (SMS) techniques. In this conventional technique, a user drafts and sends a text message to a particular service to which they subscribe. The text message that the user writes must include the type of content desired, together with basic information regarding a broadly defined location of the user, e.g., zip code, city or state.

Unfortunately, conventional techniques require the user to know their geographic location at any particular time, and to enter that geographic location as well as the particular type information sought via their mobile originated short message system (SMS) service. This knowledge is often difficult if not impossible to obtain accurately, and the required inputs are cumbersome and extensive.

Applicants invention overcomes the deficiencies of the prior art by allowing a user to retrieve location based information through use of at least one auxiliary digit appended to a telephone number initiating a telephone call.

Applicants disclose a method and system, as recited by claims 1, 20 and 26, to provide location-based reference information in a wireless network comprising receipt of an information telephone call from a subscriber at, e.g., page 3, lines 25-27. The telephone number initiating the telephone call includes

at least one auxiliary digit appended to the telephone number beyond those associated with the information telephone call at, e.g., page 3, line 25. A location-based wireless service is used to obtain a location of the subscriber, e.g., Fig. 1, item 104. A short message is retrieved relating to the location based on requested information associated with the at least one auxiliary digit, e.g., Fig. 1, steps 4 and 5. The retrieved short message is transmitted to the subscriber, e.g., Fig. 1, step 7.

Applicants disclose a method and system, as recited by claims 11, 23 and 29, of providing location-based reference information in a wireless network comprising receipt of an information telephone call from a subscriber at a mobile switching center at, e.g., page 3, lines 25-27. A telephone number initiating the telephone call includes at least one auxiliary digit appended to the telephone number beyond those associated with the information telephone call at, e.g., page 3, line 25. A location-based wireless service is used to obtain a location of the subscriber, e.g., Fig. 1, item 104. A short message is retrieved relating to the location based on requested information associated with the at least one auxiliary digit, e.g., Fig. 1, steps 4 and 5. The retrieved short message is transmitted to the subscriber, e.g., Fig. 1, step 7.

(6) GROUND OF REJECTION TO BE REVIEWED ON APPEAL

(A) Whether claims 1, 2, 10-12, 19-21, 23, 24, 26, 27, 29 and 30 are obvious under 35 U.S.C. §103(a) over U.S. Patent No. 6,560,456 to Lohtia *et al.* ("Lohtia") in view of U.S. Patent No. 6,131,028 to Whittington ("Whittington").

(B) Whether claims 3, 4, 7-9, 13, 14, 17, 18, 22, 25, 28 and 31 are obvious under 35 U.S.C. §103(a) over Lohtia in view of Whittington, and further in view of U.S. Patent No. 6,456,852 to Bar *et al.* ("Bar").

(C) Whether claims 6 and 16 are obvious under 35 U.S.C. §103(a) over Lohtia in view of Whittington, and further in view of U.S. Patent Application Publication No. 2004/0203922 to Hines ("Hines").

(7) **ARGUMENT**

(A) Claims 1, 2, 10-12, 19-21, 23, 24, 26, 27, 29 and 30 are not obvious under 35 U.S.C. § 103(a) over Lohtia in view of Whittington.

All system and method claims 1, 2, 10-12, 19-21, 23, 24, 26, 27, 29 and 30 require a telephone number initiating a telephone call including at least one auxiliary digit appended to the telephone number beyond those associated with the information telephone call used to retrieve a short message relating to a location based on requested information associated with the at least one auxiliary digit.

The Examiner alleged that Applicants previously argued that Whittington fails to disclose at least one auxiliary digit appended to a telephone number (see Office Action dated May 8, 2006, page 2). However, a closer reading of Applicants' arguments filed February 16, 2006 reveals that Applicants are arguing what Whittington's prefix number is appended to. Applicants have repeatedly argued that Whittington discloses use of a telephone number associate with a feature code, the telephone number being a destination for desired information (col. 3, lines 22-35). Thus, Whittington disclosing a feature code appended to a telephone number, however the telephone number is a destination for information, i.e., such as a destination number for call forwarding. Whittington's destination number for call forwarding including a feature code is not a telephone number initiating the telephone call including at least one auxiliary digit appended to the telephone number, as recited by claims 1, 2, 10-12, 19-21, 23, 24, 26, 27, 29 and 30.

Lohtia modified by the disclosure of Whittington would at best result in a system and method of retrieving information by a communication device (Lohtia) through use of a prefix code prefixed to a destination telephone number for information associated with the prefix code, i.e., a call forwarding telephone number (Whittington). Thus, neither Lohtia nor Whittington disclose or suggest a telephone number initiating the telephone call including at least one auxiliary digit

appended to the telephone number used to retrieve location based information, much less to retrieve a short message relating to a location based on requested information associated with the at least one auxiliary digit, as recited by claims 1, 2, 10-12, 19-21, 23, 24, 26, 27, 29 and 30.

Moreover, the Examiner is citing why Whittington is using a feature code. However, the issue is not why Whittington is using a feature code, which is the purpose of the invention, but why it would be obvious to add such a feature to Lohtia. As discussed in the previous response from the Applicants, Lohtia discloses sending a digits request trigger or an SMS message to retrieve information. Whittington discloses sending a prefix code prefixed to a destination telephone number for information associated with the prefix code to retrieve information. Lohtia's information retrieval method is already automated to the same extent of Whittington information retrieval system in that both send a code to retrieve information. Modifying Lohtia would only change the method of initiating data retrieval not provide any greater degree of automation, as alleged by the Examiner. Thus, the Examiner's motivation to modify Lohtia is unsupported by the cited prior art, which the Examiner has failed to refute.

Thus, the Examiner has still failed to provide a single reference that discloses or suggests using an auxiliary digit that is appended to a telephone number initiating the telephone call for any reason, much less the auxiliary digit appended to a telephone number initiating a telephone call used to retrieve location based information, as recited by claims 1, 2, 10-12, 19-21, 23, 24, 26, 27, 29 and 30.

It is respectfully submitted that not only does this rejection fail on its face, and thus is improper, but also in light of the above comments its clear that Lohtia in view of Whittington does not render obvious any of claims 1, 2, 10-12, 19-21, 23, 24, 26, 27, 29 and 30. Thus, the rejection of claims 1, 2, 10-12, 19-21, 23, 24, 26, 27, 29 and 30 under 35 U.S.C. § 103(a) is improper and should be reversed.

(B) Claims 3, 4, 7-9, 13, 14, 17, 18, 22, 25, 28 and 31 are not obvious under 35 U.S.C. § 103(a) over Lohtia in view of Whittington and Bar.

All rejected system and method claims 3, 4, 7-9, 13, 14, 17, 18, 22, 25, 28 and 31 require a telephone number initiating the telephone call including at least one auxiliary digit appended to the telephone number beyond those associated with the information telephone call to retrieve a short message related to a location based on requested information associated with the at least one auxiliary digit.

As discussed above, Lohtia in view of Whittington fails to disclose or suggest relying on a telephone number initiating the telephone call including at least one auxiliary digit appended to the telephone number beyond those associated with the information telephone call, much less to retrieve a short message related to a location based on requested information associated with the at least one auxiliary digit, as recited by claims 3, 4, 7-9, 13, 14, 17, 18, 22, 25, 28 and 31.

The Office Action relies on Bar to allegedly make up for the deficiencies in Lohtia in view of Whittington to arrive at the claimed features. The Applicants respectfully disagree.

As the Examiner apparently acknowledged by the Examiner's new reliance on Whittington to disclose the claimed features, Bar fails to disclose or suggest a telephone number initiating the telephone call including at least one auxiliary digit appended to the telephone number beyond those associated with the information telephone call, much less to retrieve a short message related to a location based on requested information associated with the at least one auxiliary digit, as recited by claims 3, 4, 7-9, 13, 14, 17, 18, 22, 25, 28 and 31.

Thus, Lohtia modified by Whittington and Bar would still fail to disclose or suggest a telephone number initiating the telephone call including at least one auxiliary digit appended to the telephone number beyond those associated with the information telephone call, much less to retrieve a short message related to a location based on requested information associated with

the at least one auxiliary digit, as recited by claims 3, 4, 7-9, 13, 14, 17, 18, 22, 25, 28 and 31.

It is respectfully submitted that not only does this rejection fail on its face, and thus is improper, but also in light of the above comments its clear that Lohtia in view of Whittington and Bar does not render obvious any of claims 3, 4, 7-9, 13, 14, 17, 18, 22, 25, 28 and 31. Thus, the rejection of claims 3, 4, 7-9, 13, 14, 17, 18, 22, 25, 28 and 31 under 35 U.S.C. § 103(a) is improper and should be reversed.

(C) Claims 6 and 16 are not obvious under 35 U.S.C. § 103(a) over Lohtia in view of Whittington and Hines.

All rejected system and method claims 6 and 16 require a telephone number initiating the telephone call including at least one auxiliary digit appended to the telephone number beyond those associated with the information telephone call to retrieve a short message related to a location based on requested information associated with the at least one auxiliary digit.

As discussed above, Lohtia in view of Whittington fails to disclose or suggest a telephone number initiating the telephone call including at least one auxiliary digit appended to the telephone number beyond those associated with the information telephone call to retrieve a short message related to a location based on requested information associated with the at least one auxiliary digit, as recited by claims 6 and 16.

The Office Action relies on Hines to allegedly make up for the deficiencies in Lohtia in view of Whittington to arrive at the claimed features. The Applicants respectfully disagree.

Hines discloses a system and method of returning presence information in response to a request for location information (See paragraphs 0013 and 014). However, Hines lacks any relationship to a method relying a telephone number initiating the telephone call including at least one auxiliary digit appended to the telephone number beyond those associated with the information telephone call, much less to retrieve a short message related to a location based

on requested information associated with the at least one auxiliary digit, as recited by claims 6 and 16.

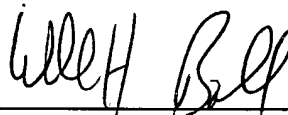
Thus, even if it were obvious to modify Lohtia with the disclosure of Whittington and Hines (which it is not since the inventions are completely unrelated), the theoretical result fails to disclose or suggest a method relying on a telephone number initiating the telephone call including at least one auxiliary digit beyond those associated with the information telephone call to retrieve a short message related to a location based on requested information associated with the at least one auxiliary digit, as recited by claims 6 and 16.

It is respectfully submitted that not only does this rejection fail on its face, and thus is improper, but also in light of the above comments its clear that Lohtia in view of Whittington and Hines does not render obvious any of claims 6 and 16. Thus, the rejection of claims 6 and 16 under 35 U.S.C. § 103(a) is improper and should be reversed.

CONCLUSION

For all the reasons set forth above, the rejections of claims 1-4, 6-14 and 16-31 are improper and should be reversed. The Applicants therefore respectfully request that this Appeal be granted and that the rejections of the claims be reversed.

Respectfully submitted,



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CLAIMS APPENDIX

CLAIMS INVOLVED IN THE APPEAL

1. A method of providing location-based reference information in a wireless network, comprising:

receiving an information telephone call from a subscriber, a telephone number initiating said telephone call including at least one auxiliary digit appended to said telephone number beyond those associated with said information telephone call;

using a location-based wireless service to obtain a location of said subscriber;

retrieving a short message relating to said location based on requested information associated with said at least one auxiliary digit; and

transmitting said retrieved short message to said subscriber.

2. The method of providing location-based reference information in a wireless network according to claim 1, wherein:

at least two auxiliary digits are included with said information telephone call.

3. The method of providing location-based reference information in a wireless network according to claim 1, wherein:

said information telephone call is initiated with dialed digits "4-1-1".

4. The method of providing location-based reference information in a wireless network according to claim 1, wherein:

said location of said subscriber is obtained using wireless or cellular network signaling.

5. (canceled)

6. The method of providing location-based reference information in a wireless network according to claim 1, wherein:

said location of said subscriber is determined using an angle of arrival of a wireless signal from said subscriber.

7. The method of providing location-based reference information in a wireless network according to claim 1, wherein:

said location of said subscriber is determined using a network generated location based on a centroid of a cell site sector's radio frequency (RF) polygon.

8. The method of providing location-based reference information in a wireless network according to claim 1, wherein:

said location of said subscriber is determined using a time difference of arrival of wireless signals from said subscriber.

9. The method of providing location-based reference information in a wireless network according to claim 1, wherein:

said location of said subscriber is determined using time of arrival of a wireless signal from said subscriber.

10. The method of providing location-based reference information in a wireless network according to claim 1, wherein:

said location of said subscriber is determined using a known location of a cell/sector servicing said subscriber.

11. A method of providing location-based reference information in a wireless network, comprising:

receiving an information telephone call from a subscriber at a mobile switching center, a telephone number initiating said telephone call including at least one auxiliary digit appended to said telephone number beyond those associated with said information telephone call;

using a location-based wireless service to obtain a location of said subscriber;

retrieving a short message relating to said location based on requested information associated with said at least one auxiliary digit; and

transmitting said retrieved short message to said subscriber.

12. The method of providing location-based reference information in a wireless network according to claim 11, wherein:

at least two auxiliary digits are included with said information telephone call.

13. The method of providing location-based reference information in a wireless network according to claim 11, wherein:

said information telephone call is initiated with dialed digits "4-1-1".

14. The method of providing location-based reference information in a wireless network according to claim 11, wherein:

said location of said subscriber is obtained using wireless or cellular network signaling.

15. (canceled)

16. The method of providing location-based reference information in a wireless network according to claim 11, wherein:

said location of said subscriber is determined using an angle of arrival of a wireless signal from said subscriber.

17. The method of providing location-based reference information in a wireless network according to claim 11, wherein:

said location of said subscriber is determined using a time difference of arrival of wireless signals from said subscriber.

18. The method of providing location-based reference information in a wireless network according to claim 11, wherein:

said location of said subscriber is determined using time of arrival of a wireless signal from said subscriber.

19. The method of providing location-based reference information in a wireless network according to claim 11, wherein:

said location of said subscriber is determined using a known location of a cell/sector servicing said subscriber.

20. A system to provide location-based reference information in a wireless network, comprising:

a receiver to receive an information telephone call from a subscriber, a telephone number initiating said telephone call including at least one auxiliary digit appended to said telephone number beyond those associated with said information telephone call;

a location-based wireless service to obtain a location of said subscriber;

a retriever to retrieve a short message relating to said location based on requested information associated with said at least one auxiliary digit; and

a transmitter to transmit said retrieved short message to said subscriber.

21. The system to provide location-based reference information in a wireless network according to claim 20, wherein:

at least two auxiliary digits are included with said information telephone call.

22. The system to provide location-based reference information in a wireless network according to claim 20, wherein:

said information telephone call is initiated with dialed digits "4-1-1".

23. A system to provide location-based reference information in a wireless network, comprising:

- a receiver integrated with a mobile switching center to receive an information telephone call from a subscriber, a telephone number initiating said telephone call including at least one auxiliary digit appended to said telephone number beyond those associated with said information telephone call;

- a location-based wireless service to obtain a location of said subscriber;

- a retriever to retrieve a short message relating to said location based on requested information associated with said at least one auxiliary digit; and

- a transmitter to transmit said retrieved short message to said subscriber.

24. The system to provide location-based reference information in a wireless network according to claim 23, wherein:

- at least two auxiliary digits are included with said information telephone call.

25. The system to provide location-based reference information in a wireless network according to claim 23, wherein:

- said information telephone call is initiated with dialed digits "4-1-1".

26. A system to provide location-based reference information in a wireless network, comprising:

means for receiving an information telephone call from a subscriber, a telephone number initiating said telephone call including at least one auxiliary digit appended to said telephone number beyond those associated with said information telephone call;

means for using a location-based wireless service to obtain a location of said subscriber;

means for retrieving a short message relating to said location based on requested information associated with said at least one auxiliary digit; and

means for transmitting said retrieved short message to said subscriber.

27. The system to provide location-based reference information in a wireless network according to claim 26, wherein:

at least two auxiliary digits are included with said information telephone call.

28. The system to provide location-based reference information in a wireless network according to claim 26, wherein:

said information telephone call is initiated with dialed digits "4-1-1".

29. A system to provide location-based reference information in a wireless network, comprising:

means for receiving an information telephone call from a subscriber, a telephone number initiating said telephone call including at least one auxiliary digit appended to said telephone number beyond those associated with said information telephone call, said means for receiving being integrated with a mobile switching center;

means for using a location-based wireless service to obtain a location of said subscriber;

means for retrieving a short message relating to said location based on requested information associated with said at least one auxiliary digit; and

means for transmitting said retrieved short message to said subscriber.

30. The system to provide location-based reference information in a wireless network according to claim 29, wherein:

at least two auxiliary digits are included with said information telephone call.

31. The system to provide location-based reference information in a wireless network according to claim 29, wherein:

said information telephone call is initiated with dialed digits "4-1-1".

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None